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State Safety News

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EDITED BY S. C. DICKINSON

SAFETY ENGINEER, ARIZONA STATE BUREAU OF MINES



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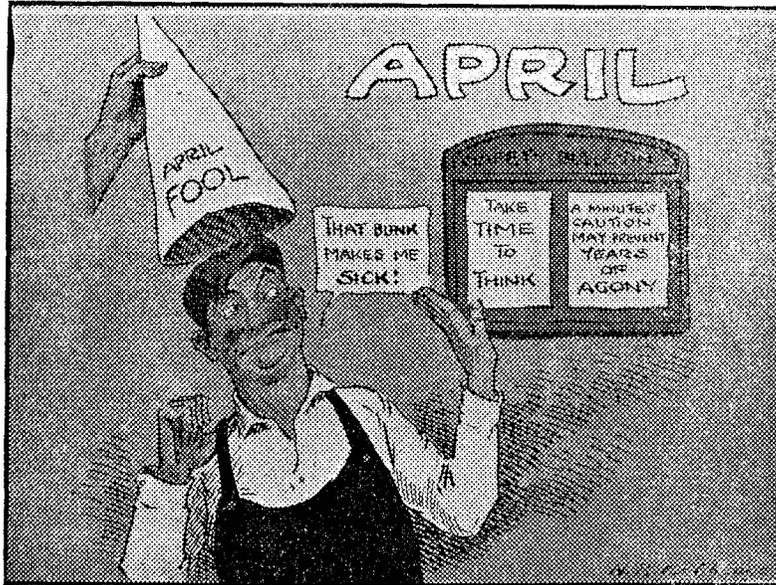
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# *State Safety News*

*Safety* *Efficiency*

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SAFETY SERIES No. 30

APRIL 1, 1918

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## LIBERTY LOAN

L—iberty for all.  
I—ntegrity of Home.  
B—uy Victory—Buy War Savings and Thrift Stamps.  
E—very Miser helps the Kaiser.  
R—aise your Quota to make up for the Dollar Slacker.  
T—wo Bits a Day—the Patriot's Way.  
Y—ou cannot act as though we were at peace.

L—end your Money to Uncle Sam.  
O—thers give their lives! What will you give?  
A—merica needs your help! Be true to democratic principles.  
N—o power can stay a German victory but real sacrifice.

## THE GREAT QUESTION

What is my duty, what is the most sensible and profitable course for me to follow in my private and business affairs during the continuance of the war?

This is the great question confronting every American citizen.

### PART 1.

Here is a common-sense reply:

Before we can settle the matter in detail, we must grasp those elementary principles which govern national affairs.

This does not involve great learning or research, for economic knowledge is little else than common sense applied to big subjects.

The war will be won by the nation which can place the greatest number of men, the greatest amount of material in the field, and produce the greatest amount of foodstuffs to supply its military and civilian forces. This fact is so generally recognized that it is not necessary to bring forward elaborate arguments to prove it.

We are a wealthy nation, and the question arises as to whether or not we can win the war by throwing our surplus wealth into the struggle.

We cannot.

Why? Because our savings, as a nation, amounted to about Five Billion Dollars annually before we entered the war, and our war estimates for the first year's operations call for an expenditure of about Eighteen Billion Dollars, or over  $3\frac{1}{2}$  times as much as we have ever saved before in one year.

Now, there are three courses open to us. We can endeavor to produce three and a half times as much wealth this year as ever we did before. We can endeavor to save three and a half times as much money as ever we did before. We can lie down on the whole proposition, and let Germany win.

Having described this article as a common-sense reply to a great question, we will eliminate the last mentioned possibility.

We cannot produce  $3\frac{1}{2}$  times as much wealth as ever before, this year. It will take several years to adjust our affairs so as to produce such results.

To save  $3\frac{1}{2}$  times as much as ever we have before is quite possible, but would mean actual hardships for millions of our people.

The most sensible solution of the problem is to aim at a combination of production and self-denial which will find us at the end of a year at least  $3\frac{1}{2}$  times wealthier, as a nation, than ever before.

The method indicated has been followed by our Allies with results that have astonished the world. After two and one-half years of physical and financial strain, England raised recently a loan of Five Billion Dollars, equivalent to Ten Billion Dollars in this country, owing to the fact that we have about double the population. England has speeded up her production of wealth, denied herself so much that, despite the fact that millions of her finest specimens of human material are fighting, despite the fact that she has raised previously about a like amount of Five Billion Dollars in loans, and is paying Two and a Half Billion Dollars yearly in taxes, she was able still to produce this enormous amount in a 30-day campaign.

Germany is speeding up her production along the most scientific lines, and is starving herself. That is the sole reason why Germany lives today.

Are we super-men, that we can do things differently to others?

Let us forget this talk of "Uncle Sam cleaning up the Germans, when he gets there." The Germans will not be "cleaned up" by talk, or even by bravery alone. They must be fought with their own weapons, hard work and self-denial—the things that win wars.

Again, the man who cries, "Let the rich man pay," has not grasped

the elementary facts of the situation. The rich man IS paying, and WILL pay, for the Government is calling already for as much as 50 per cent of his profits in the shape of Income and War Profit Taxes.

It is true that the Government is not taking away the rich man's capital, but neither is it asking the less wealthy producer to part with his capital. All alike must retain their capital in order to run factories, farm the land, build ships, equip armies, and provide wages.

It would be an entirely mistaken policy to attempt to use the capital wealth of the country to finance the war. What you need, what the Government needs, is an increase, a very great increase, in the INCOME of the rich and poor alike.

You farmers must produce more, must work harder; the uncultivated land of this country is a standing reproach to us. You working men must work overtime. You women must economize and save in the home. You wealthy automobilists must curtail your extravagances and let the automobile manufacturer be free to make trucks, and cars, for the Government. You society women must realize that it is vulgarity and almost treason to keep an army of workers making your clothes when they could be doing useful work for the Government. You children must help with the housework and free men and women to fight and produce goods needed by the country.

We must get together for greater efficiency.

We must save or perish.

## PART 2

We will assume that you have agreed to the conclusions in Part 1, and have resolved to produce more wealth, to work harder, and to deny yourself in the matter of food and luxuries.

Soon after adopting these measures, you will find yourself growing richer, accumulating money at a much greater rate than ever before.

Your duty and your common sense demand that you lend this to the Government.

By doing this you will make a very definite contribution to the success of the war. The additional crops you grow, the additional hours you put in at your work, the little hardships you endure as you economize will feed soldiers, will buy guns and ammunition, build airships, will crush Germany, will make the world safe for business and safe for democracy.

How can you best lend your wealth, the product of your labor and self-denial to your country?

By buying Liberty Bonds.

"But," you say, "the campaign for the Second Liberty Bond Loan is over."

Yes. The flags have ceased to wave, the bands have stopped playing, but have you a bond? Or, if you have, have you purchased to the limit of your ability?

In those sections where people were indifferent to the loan, the bankers came forward, shouldered the responsibilities of their customers and bought bonds far in excess of their share, because they believed that, sooner or later, their customers must see reason and be anxious to purchase a bond. If you have no bond, purchase one from your banker just as soon as you are able. You will be doing a man's part, "doing your bit," shouldering your own responsibilities instead of allowing the banker to do your duty for you.

Some men seem to regard the purchase of bonds as a mysterious business, and feel that they are sinking their money forever in the purchase.

A bond looks like a great big \$50.00 or \$500.00 bill, and is wonderfully like one in its uses. There is one great difference, however; a \$50.00 or \$500.00 bill bears no interest, whereas a Liberty Bond bears 4 per cent interest.

How easily can a bond be turned into money?

Almost as easily as a bill of large denomination. While you buy your bond with the idea of lending money to the Government, there are thousands of people to relieve you of your responsibility should you find such a course necessary.

Millions of dollars worth of Liberty Bonds change hands every week. Everywhere, commercial firms are beginning to advertise that they will accept Liberty Bonds in payment of accounts.

"Why," you say, "I might as well own bonds as money."

Better; far better.

"Why, then, do you make this special appeal, and beg of me so earnestly to buy Liberty Bonds?" you may ask.

Because, when you buy these bonds the Government has the use of your money, can use it to win the war. If you, from failure to understand the situation, insist that your money shall not be used by the Government, you are assuming a selfish attitude, lacking both in common sense and patriotism.

It may be that your money was not available when the last Liberty Loan campaign was in progress. It may be that you intended to buy a bond but allowed the lists to close before you got around to it.

Here is your chance. Go now to your banker, ask him whether this

little article contains the truth, ask him whether he has the bonds on hand, or will obtain one for you—then buy to the limit of your ability.

Whatever you do, whoever you are, and whatever your business, start working, saving, economizing now for the future loans. There will be others, one on April 6th, for the end of the great struggle is by no means in sight.

The writer of these lines has nothing but the good of our beloved country at heart—no one makes one cent out of your Liberty Bonds but yourself. Earnestly, sincerely, as one American to another, he bids you remember this message:

“We must get together for greater efficiency.”

“We must save or perish.”

### *WAKE UP, AMERICA!*

*We are at war.*

*You cannot act as though we were at peace.*

*War involves sacrifice.*

*Our Allies are heaping upon the altar of freedom half of their income and savings of years.*

*Our enemy is bankrupting himself, starving himself, offering in his frenzy of effort, his children and his old men to the god of battle.*

*No power can stay a German victory but sacrifice—real sacrifice—on your part.*

*Your country, your boys in France, your fellow citizens, your God, and your conscience, are calling*

*WAKE UP, AMERICA!*

*The flag under which we serve would have been dishonored had we withheld our hand.*

### TURN CASH INTO GUN FIRE

We fought and won the Spanish war with 150,000 soldiers and a \$200,000,000 bond issue. In men under arms we now have ten times that number. We issued ten times that amount of bonds in the first Liberty Loan. We are proposing to spend and loan to the Allies in the first fiscal year of the war \$19,000,000,000. From now until the end of this fiscal year the treasury anticipates needing \$300,000,000 a week—that is, the treasury has to fight financially a

Spanish war every four days. That indicates a money measure of the size of this work, but that is not the real measure. We have just seen that one might have plenty of money, but an empty coal bin. In just the same way the Government can have plenty of money, but an unequipped army. This army cannot be equipped as modern warfare demands if the man power of the country is at the same time called upon to produce all of our ordinary comforts and luxuries. It is as plain as two and two that all of us must make personal sacrifices, must give up comforts and luxuries, even necessary expenditures that can be postponed, if there is to be labor and material enough to equip the army in time for it to fight while it will do some good to have it fight.

In war the only effort that is of any value is that which is ultimately translated into gun fire on the field of battle. The gun fire that will win this war cannot be delivered until all America recognizes individual responsibility, until the whole people join in the effort by giving up things that they can do without, so that the labor that would have been employed in making those things can do work that will ultimately result in gun fire. The Government has offered the opportunity to translate at once every one's personal patriotism into the sort of help that will win the war. Forego buying something that is unnecessary; loan the money you would have used to the Government by buying \$5 War Savings Certificates. You will thus have released labor, you will have given credit to the Government, you will have acquired the best security in the world, a United States Government Bond.

*The eyes of the people have opened and  
they see.*

### HOLD YOUR LIBERTY BONDS

Secretary of the Treasury McAdoo urges the purchasers of Liberty Loan Bonds of both the first and second issues to hold fast to their bonds. They are the best investment in the world.

The Secretary's statement was called forth by the fact that Liberty Bond holders are being approached from time to time by agents seeking to induce them to part with their Liberty Loan Bonds and take in exchange securities which in a number of cases are of a very questionable value, and was prompted by the desire to protect the bondholders against ill-advised disposition of their bonds.

The Secretary expresses the hope that every purchaser of a Liberty Bond will realize that the only genuine help that he gives his Government is keeping his bond as an investment so long as it is possible for him to do so. He states, however, that no just objection lies to the sale of a Liberty Bond where real necessity exists for its sale.

*War Savers are Life Savers.*

### INVEST YOUR SAVINGS IN GOVERNMENT SECURITIES

Since the war wholesale prices in the United States have been rising at the rate of nearly 2 per cent per month, or nearly ten times as fast as before the war. In some countries in Europe the rise in prices has been two or three times as rapid as in the United States. While the war lasts the commodity price level will inevitably mount by leaps and bounds, unless we adopt rigorous preventive measures. In particular we must avoid, so far as possible, lending-by-borrowing.

Loans to the Government made not from savings but from borrowings will tend to increase bank credit. Further extension of bank credit will chiefly bring about a rise in commodity prices. It is therefore desirable that further loans to the Government should be made out of current savings.

There are two ways for us to lend money to our country. The right way is the frank and honest way of saving, by spending less or earning more. The other and wrong way is the, at first, cheap and easy, although ultimately costly and painful, way of lending the Government what we borrow from the bank. Even that species of robbing Peter to pay Paul is, of course, better than paying Paul nothing; for Paul, i. e., the United States Treasury, must have the cash. But it can be justified only when unavoidable or when used as a temporary expedient. and the debts so contracted are soon repaid out of savings.

If I buy Government securities by giving up the purchase of a pleasure automobile, the Government can buy a military truck with the same money, and the labor and capital which would have made the pleasure car for me will make the truck for the army instead. That is the right way.

The wrong method is employed if I insist upon buying that pleasure car and so can buy the Government securities only by borrowing the money at a bank. I have sacrificed nothing out of current-money

income. I have simply increased the money income of the Government. The bank which lends me the money does so by writing down a "deposit" to my credit on its books, which "deposit" I transfer to the Government. This deposit provides purchasing power without providing or releasing anything to be purchased. The result is that instead of labor and capital turning from the making of pleasure cars to the making of motor trucks they are called upon to make both. I give the Government my check to buy the truck, but at the same time I enter the market to prevent the Government from getting it. In short, the public, by its paper subscriptions, appears generous to its Government, but is selfishly refusing to make the actual sacrifice.

The principle is a broad one. If we give up non-essentials to buy Government securities, we allow the Government to buy war essentials, and at the same time release productive energy from the making of non-essentials for us to the making of essentials for the Government.

*Win the War  
Bit—Buy—Bit!*

#### WAR GARDENS

The extent of our nation's gain from the home garden movement changes as conditions change. In the early spring of 1917 our need for home garden production was the need of a country in which war was merely an oversea reflection and a transatlantic echo. It was based on necessity for supplementing a national food supply depleted by the insistent requirements of European nations in which production had been checked by the ravages of war. America, having no war of its own, was in the position of a big brother charged with helping those less fortunate.

Suddenly becoming a nation at war, America found itself confronted with a food problem as vital as that of the battle-torn countries of Europe. Overnight, the American Home Garden became a War Garden. The expansion of a military establishment and the draft on laborers by munition and kindred factories resulted in decreasing the production of food stuffs through the normal professional channels and thus emphasized the importance of the amateur's garden in the back yard or vacant lot.

This importance is vastly magnified for the coming season of 1918. Not only does the growing need of Europe increase that continent's

demands upon our food reservoir, but our own future farm production is threatened with shrinkage. Government figures indicate that not less than six hundred thousand men, trained and experienced in farm work, have been taken from the farms of America since the beginning of this country's participation in the war. These figures are ominous. With six hundred thousand farm workers suddenly shifted into the class of non-producers it requires no imagination to foresee that 1918 will show a more grievous shortage of farm labor than did 1917. Everyone knows how severe was that shortage last season. No one can fail to realize what all this will inevitably mean in the matter of farm production.

With this definite hardship in sight for the farm crops the backyard and vacant lot garden becomes more than ever a War Garden and a national necessity. The single factor most vital to military success is food. Food is the one thing for which there is no substitute. When Germany was cut off from the nitrate fields of Chile, German chemists and engineers commandeered the nitrogen of the air for the creation of the nitric acid essential in the manufacture of explosives. Wood pulp has been substituted for cotton fibre in the making of guncotton, and in divers other ways science, by devising substitutes, has overcome shortages. No scientist has yet discovered a substitute for food. The only solution of the food problem is an increased production and to make this possible the home gardeners of America face 1918 with a responsibility far greater than that with which they set about their work last season.

Volume is not the sole requirement for food production in this time of emergency. Conservation of transportation is equally important. So far as possible, all food should be grown in the immediate neighborhood of its place of ultimate use. It is imperative to the national welfare that no avoidable strain be placed on the transportation facilities of the country. Shipments of foodstuffs require freight cars which are urgently needed for shipments of munitions, fuel and other supplies vital to the needs of a nation at war. Unnecessary shipments must be eliminated. This means production of food where it is to be used. This involves the cultivation of food gardens at every home and on every inch of vacant land in the neighborhood of cities, towns, and villages.

One of the means which will prove most helpful to the home gardener in adding to the food supply is the national daylight saving scheme, which Germany adopted early in the war and which a number of other nations have since put into operation with great profit as

a war measure. This simple plan of turning the clock forward and starting the day's work an hour earlier during the summer months will give an extra hour of daylight in the afternoon, which will furnish the opportunity of devoting that much more time to the cultivation of the soil. The results which can be accomplished by the addition of an hour every day for garden work will largely increase the production raised.

By their energy, industry and application in 1917, the home gardeners of the United States showed that they were alive to the call of patriotism. The garden slacker received no more cordial consideration than the military slacker. Home gardening has come to be regarded as the gift of a patriotic people to a nation in need. It is also an enterprise of individual benefit. Through garden activities Americans in hundreds of thousands of households have learned new lessons in the joy of living. Last year's excursions into home gardening was to many a voyage of discovery as to the delights of the table when supplied with vegetables freshly gathered from the garden. It was also a journey of exploration through the land of new helpfulness and strength revealed through the medium of outdoor exercise and wholesome vegetable diet.

The coming season should see the re-cultivation of every garden cultivated in 1917 and the addition of all the other garden planting area available. During three and a half years of warfare the allied nations have drained their agricultural resources to a point where productive possibilities are now at a minimum. The world's shipping facilities are so inadequate that the European food supply must necessarily come from America as the land in which shipments can be made with the least tax on the ships left available by submarine warfare. The time requirements for shipments from Australia and other remote countries are such as to be prohibitive. America is the one place on which the Allies can depend for the feeding of their armies and population. To enable America to do its share, our Home Gardeners must recognize that they are War Gardeners and therefore vital to the success of the armies. They must produce foodstuffs on a tremendous scale, with the central thought that eternal industry on the part of their gardens is the price of world wide freedom.

Information on War Vegetable Gardening and the Home Storage of Vegetables will be sent on application to the Bureau of Mines.

*Food will win the War.*

## THE FIRST-AID TREATMENT OF WOUNDS

BY S. C. DICKINSON

Injuries in which the skin is pierced or broken are called wounds. Wounds may be large and small, deep and shallow, clean and sharp, or ragged and dirty, all depending upon the force and instrument with which they have been produced. In every wound there lies the possibility of infection by pus germs, which means that inflammation will follow, more or less matter will form, and there will be some absorption of poison from the wound, which may result in the more severe forms of blood-poisoning, and almost inevitable death.

These infections are caused by disease germs which get into the wound from outside sources, such as from the hands, clothing, rock, ore, dust, etc., or, in fact, from anything that comes in contact with the wound.

There are more different and original treatments for wounds than there are types. Some of the wound treatments advanced by laymen are very dangerous. Infection is caused by germs which exist on everything and in everything, but the air—except when they have been killed by an antiseptic or by the heat, and the following treatments are septic rather than aseptic:

1. It was a practice in olden times, and even until recent date, to immediately wash wounds with a solution containing carbolic acid, or corrosive sublimate (bichloride of mercury), or some antiseptic agent. The idea was, that in washing the wound it was cleansed, and in the application of a dilute antiseptic, the germs present were killed. Such solutions are usually not strong enough to kill the germs, and if they were, they would also destroy the cells of the body, which help dispose of the pus germs. Experience has proven that instead of cleansing the wound, washing more often carries germs into it. Water is dangerous as it contains many pus germs.

2. Peroxide of hydrogen, commonly called "peroxide," is especially dangerous as it washes germs into infected parts of a wound. Peroxide is not strong enough to kill the germs and its use should be strongly condemned.

3. Cobwebs, chewing tobacco, and waste should never be used, due to the fact that they contain many pus germs.

4. The use of plaster must be absolutely condemned, for not only does the plaster seal the wound so that any germs within will be in most favorable position to increase in numbers, but is, itself, most likely to be covered with pus germs.

5. Germs have no chance to escape when the wound has been sealed with collodion, therefore it should not be used.

6. The covering of a wound with *any* piece of cloth is not the proper treatment.

7. A cut finger should not be put into the mouth as the wound will then be subject to contamination.

Exposure to the air is much safer than the application of anything which is not surgically clean or antiseptic.

Treatment of open wounds is simple, but must be done with some intelligence. Nature is the chief physician whose aid never fails if due attention is paid to her laws. When a wound is made blood immediately makes its appearance, and in this blood, or serum, is nature's first application of an antiseptic. The living blood has a certain resistance to infectious germs, but the dying blood, such as that which escapes from a wound and clots upon the surface, is many times more destructive of germ life than the living; the escaping blood also rids the wound of germs by washing them out, and the cells of the body are able to destroy many others. We should conclude, then, that every wound is not infected by pus germs and must use every care *not* to infect it with our hands, by water, dressings, or anything else.

The First-Aid treatment of a wound consists of the following:

A. Place the patient in a safe and comfortable position.

B. Remove the necessary clothing in order to inspect the wound.

C. Control the flow of blood either by pressure or position. In ninety-nine cases out of a hundred, exposure to the air, or the pressure of the dressing is all that is necessary to stop bleeding.

D. If the wound contains grease, flush out with a solution of one part iodine to nine parts benzine or gasoline.

E. Apply a dry, antiseptic or sterile dressing, being very careful not to touch any part of the dressing that is going to touch the wound, and hold it in place with a triangular bandage. If iodine can be obtained ( $3\frac{1}{2}$  per cent solution) apply it to the injury and surrounding skin, allow to dry, then put on the dressing. *Do not soak the dressing with iodine.* Iodine is 100 per cent efficient if used *within thirty minutes after a wound is received.*

F. Treat shock.

G. *Send the patient to a doctor.*

The severe injury nearly always receives immediate surgical attention; it is the small injury—nothing but a scratch—which usually causes infection and causes the patient temporary disability, or the

loss of a limb, or even life. Seventy-eight per cent of all the cases of infection result from seemingly trivial injuries.

Cuts, puncture wounds by nails, wire or candlesticks, foreign bodies in the eye, scratches, splintered wounds and burns, are some of the trivial wounds which, if neglected, will result in serious infection.

Foremen, first-aid men, shift bosses and others should make it part of their duty to teach men to *fear* small injuries, and to see that they receive *immediate* first-aid treatment, and that they report to the doctor as soon thereafter as possible.

*Not every one is physically fit  
To shoulder a gun and do their bit;  
So they who must remain at home  
Should over-subscribe the Liberty Loan.*

<p><i>Sing a song of Thrift Stamps, pocket full of dough, Lend it to your Country, and help the war fund grow, When five years are over, the U. S. Government, Will give you back your capital, with added four per cent.</i></p>
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